



# 2K Tinted Midcoat Repair Process



## GENERAL

### DESCRIPTION

**2K tinted midcoats:** Permasolid® 2K Diamond Midcoat, MC 0001, Permasolid® 2K Transparent Red Midcoat, MC 0002, or Permasolid® 2K Transparent Blue Midcoat, MC 0003 will be needed in combination with **Permasolid® Low VOC Clear Coat 8096** or **Permasolid® HS Clear Coat 8035**, used as an **untinted** blending clear, to repair various special OEM colors. **These tinted midcoats** can be used over either Permacron® Base Coat Series 293/295 or Permahyd® Hi-TEC 480.

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.



## MIXING

### COMPONENTS

Refer to Mix Tables below.

### MIX RATIO

#### PERMASOLID HS HARDENERS

Refer to Mix Tables below

#### PERMASOLID VHS HARDENERS

Refer to Mix Tables below.

#### PERMASOLID LOW VOC HARDENERS

Component	Volume
MC 0001, MC 0002, or MC 0003	2
3192 / 3194 / 3196	1
3394 / 3392	+10-15%

#### ELASTIC TINTED MIDCOAT - PERMASOLID LOW VOC HARDENERS

MC 0001, MC 0002, or MC 0003	2
9050	+15%
3192 / 3194 / 3196	1
3394 / 3392	+10-15%

#### PERMASOLID HS HARDENERS

Mixing Information for MC 0001, MC 0002, MC 0003, or 8096 with HS Hardeners

Component	Pint	Pint	Pint	Quart	Quart	Quart
	5% Reduction	10% Reduction	15% Reduction	5% Reduction	10% Reduction	15% Reduction
MC 0001, MC 0002, MC 0003, or 8096	289.6	276.5	264.5	579.3	553.0	528.9
3307, 3309, 3310, 3315, 3320, or 3325	182.9	174.6	167.0	365.8	349.2	334.0
3363, 3365, or 8580	20.3	38.8	55.7	40.7	77.6	111.4



**Mixing Information for Elastic MC 0001, MC 0002, MC 0003, or 8096 with HS Hardeners**

Component	Pint	Pint	Pint	Quart	Quart	Quart
	5% Reduction	10% Reduction	15% Reduction	5% Reduction	10% Reduction	15% Reduction
MC 0001, MC 0002, MC 0003, or 8096	251.9	240.4	230.0	503.7	480.8	459.9
9050 (15%)	38.8	37.1	35.5	77.7	74.1	70.9
3307, 3309, 3310, 3315, 3320, or 3325	182.9	174.6	167.0	365.8	349.2	334.0
3363, 3365, or 8580	20.3	38.8	55.7	40.7	77.6	111.4

**PERMASOLID VHS HARDENERS**

**Mixing Information for MC 0001, MC 0002, MC 0003, or 8096 with VHS Hardeners**

Component	Pint	Pint	Quart	Quart
	20% Reduction	25% Reduction	20% Reduction	25% Reduction
MC 0001, MC 0002, MC 0003, or 8096	301.7	289.6	603.4	579.3
3220, 3230, 3240, or 3245	120.8	116.0	241.6	232.0
3363, 3365, or 8580	71.2	85.5	142.5	171.0

**Mixing Information for Elastic MC 0001, MC 0002, MC 0003, or 8096 with VHS Hardeners**

Component	Pint	Pint	Quart	Quart
	20% Reduction	25% Reduction	20% Reduction	25% Reduction
MC 0001, MC 0002, MC 0003, or 8096	262.4	251.9	524.7	503.7
9050 (15%)	40.5	38.8	80.9	77.7
3220, 3230, 3240, or 3245	120.8	116.0	241.6	232.0
3363, 3365, or 8580	71.2	85.5	142.5	171.0

**APPLICATION VISCOSITY**

15-16 seconds at 68°F/20°C, DIN 4

**POT LIFE**

Approximately 0.5-1 hour at 68°F/20°C when ready to spray



**SPECIAL TIPS**

- 15% Permasolid® Elastic Additive 9050 can be added to both the Permasolid® **tinted midcoat** and the **Permasolid® Low VOC Clear Coat 8096**. Permasolid® Elastic Additive 9050 must be mixed with the **tinted midcoat** or **untinted clear** coat prior to the addition of hardener and reducer.  
 Note: If Permasolid® Elastic Additive 9050 is added to the **tinted midcoat**, it should also be added in the same amount to the **Permasolid® Low VOC Clear Coat 8096** and the **final clear coat**.



**APPLICATION**

**SUBSTRATES**

Permacron® Base Coat Series 293/295 (ground coat)  
 (See Technical Data Sheet 970.10 or 970.13)  
 Permahyd® Hi-TEC 480 (ground coat)  
 (See Technical Data Sheet 480)

**SPRAYGUN SETUP**

HVLP	1.3-1.4mm
Approved Transfer Efficiency	1.2-1.3mm

Please refer to gun manufacturer and local legislation for proper spray pressure recommendations.

**APPLICATION**

- 1-3 coats as needed for color match with 2-5 minutes intermediate flash-off between coats if more than 1 coat is required.

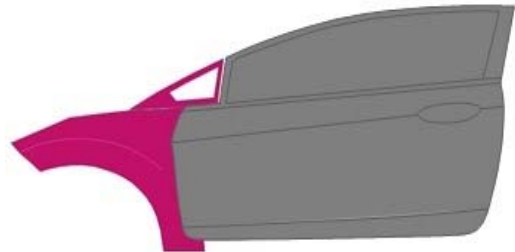
**2K Tinted Midcoat Repair Process with Permacron® Base Coat Series 293/295**

**1. Check color:**

Create a let-down panel to establish # of coats of **tinted midcoat** needed for color match.

**2. Base coat application:**

Mask the blend panel to protect blend area from overspray (optional).  
 Apply Permacron® Base Coat Series 293/295.

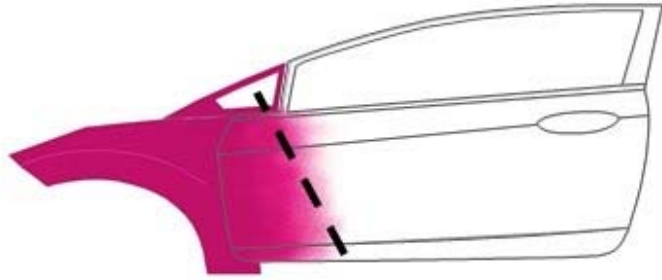


For flash-off times, please refer to the Permacron® Base Coat Series 293/295 TDS.



**3. Blending the base coat:**

Remove the masking paper if used.  
Blend the base coat normally.  
(Refer to Permacron® Base Coat Series 293/295 TDS)  
Pay close attention to overspray drift.



For flash-off times, please refer to the Permacron® Base Coat Series 293/295 TDS.

**4. Blending the tinted midcoat:**  
(see common step 4 below)

OR

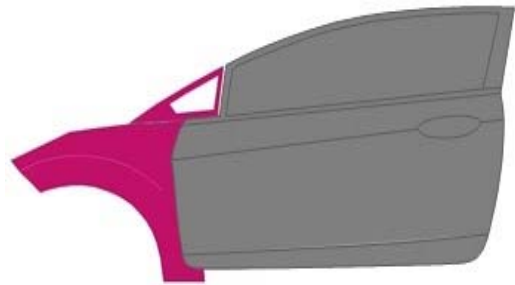
**2K Tinted Midcoat Repair Process with Permahyd® Hi-TEC 480**

**1. Check color:**

Create a let-down panel to establish # of coats of **tinted midcoat** needed for color match.

**2. Base coat application:**

Mask the blend panel to protect blend area from overspray.  
Apply Permahyd® Hi-TEC 480.



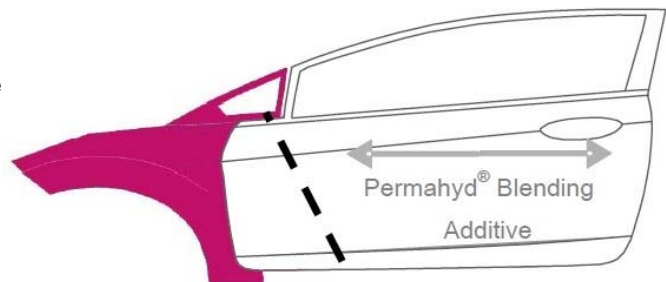
Apply base coat.  
1.5 coats



For flash-off times, please refer to the Permahyd® Hi-TEC 480 TDS.

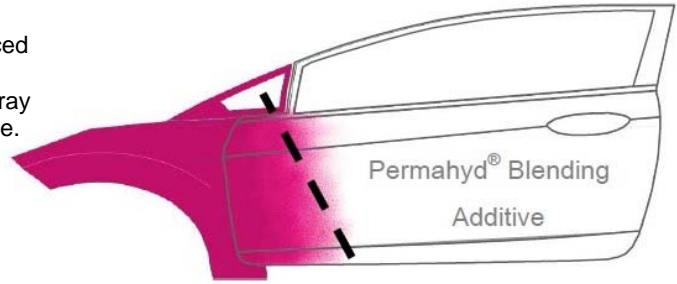
**3. Blending the basecoat:**

Remove the masking paper.  
Apply Permahyd® Blending Additive 1050 or 1051. Do not allow to flash.





Blend Permahyd® Hi-TEC 480 into adjacent panel, spraying with reduced pressure (minimum 20-24 psi). Pay close attention to avoid overspray drift. Use outside in blend technique.



Blending the base coat.  
1 spray operation

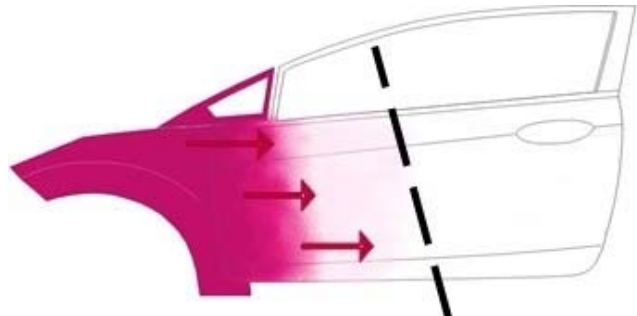


For flash-off times, please refer to the Permahyd® Hi-TEC 480 TDS.

**4. Blending the tinted midcoat:**  
(see common step 4 below)

**4. Blending the tinted midcoat:**

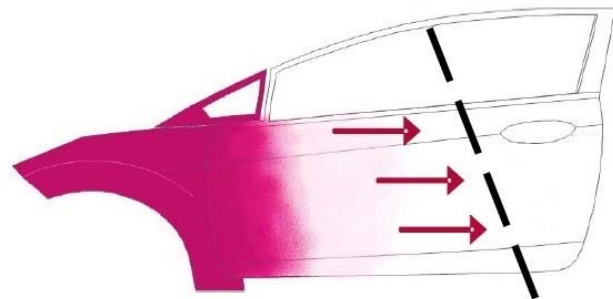
Recoat the base coat with a single coat of **tinted midcoat** and verify color match. Apply additional coat(s) of **tinted midcoat** with minimal flash (2 – 5 minutes between coats), as needed to achieve color match (generally only 2 coats are required).



Important Note: The **tinted midcoat** should not be applied over the entire blend panel or a darker color will result at the end of the panel.

Fade out zone of the **tinted midcoat**.

Stagger **tinted midcoat** with each new application for best results.

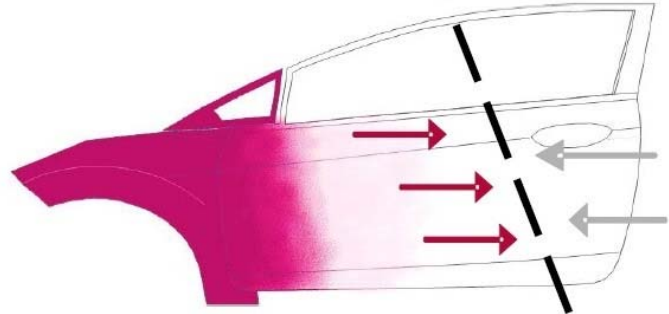


Fade out zone of the **tinted midcoat**.



**5. Blending the clear coat:**

Apply a single application of **Permasolid® Low VOC Clear Coat 8096 (untinted)** or **Permasolid® HS Clear Coat 8035** from outside in.



**Blending Permasolid® Low VOC Clear Coat 8096 – untinted or Permasolid® HS Clear Coat 8035 – untinted.**

Blend the **Permasolid® Low VOC Clear Coat 8096** or **Permasolid® HS Clear Coat 8035** wet-on-wet into the **tinted midcoat**.



**DRY TIMES**

**LOW BAKE**

Flash-off time: 0-5 minutes  
 Drying time at 130°F/55°C metal temp.: 15 minutes

6. After bake, allow panel(s) to cool completely.

A careful intermediate sanding with P1000-P2000 is optional.



**APPLICATION**

7. Apply 1.5-2.0 coats of Permacron® or Permasolid® clear coat.



**DRY TIMES**

Please refer to the TDS of the respective Permacron® or Permasolid® clear coat used for dry time recommendations.



**PHYSICAL PROPERTIES**

**Coating Category:** Color Coating (HS Hardeners)  
 Max. VOC (AP): 407 g/l; 3.4 lbs/gal  
 Max. VOC (LE): 467 g/l; 3.9 lbs/gal  
 Avg. Gallon Weight: 1041.0 g/l; 8.69 lbs/gal  
 Avg. Weight % Volatiles: 53.9%  
 Avg. Weight % Water: 0.0%  
 Avg. Weight % Exempt Solvent: 14.5%  
 Avg. Volume % Water: 0.0%  
 Avg. Volume % Exempt Solvent: 12.5%



Theoretical Coverage: 670.3 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 335.2 sq. ft.

**Coating Category:** Color Coating (HS Hardeners, Elastic Additive)  
Max. VOC (AP): 407 g/l; 3.4 lbs/gal  
Max. VOC (LE): 467 g/l; 3.9 lbs/gal  
Avg. Gallon Weight: 1042.9 g/l; 8.70 lbs/gal  
Avg. Weight % Volatiles: 52.1%  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 12.6%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 10.9%

Theoretical Coverage: 696.7 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 348.4 sq. ft.

**Coating Category:** Color Coating (VHS Hardeners)  
Max. VOC (AP): 372 g/l; 3.1 lbs/gal  
Max. VOC (LE): 431 g/l; 3.6 lbs/gal  
Avg. Gallon Weight: 1046.5 g/l; 8.73 lbs/gal  
Avg. Weight % Volatiles: 51.8%  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 15.8%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 13.7%

Theoretical Coverage: 706.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 353.2 sq. ft.

**Coating Category:** Color Coating (VHS Hardeners, Elastic Additive)  
Max. VOC (AP): 372 g/l; 3.1 lbs/gal  
Max. VOC (LE): 431 g/l; 3.6 lbs/gal  
Avg. Gallon Weight: 1048.8 g/l; 8.75 lbs/gal  
Avg. Weight % Volatiles: 49.7%  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 13.7%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 11.9%

Theoretical Coverage: 706.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 353.2 sq. ft.

**Coating Category:** Color Coating (Low VOC Hardeners)  
Max. VOC (AP): 156 g/l; 1.3 lbs/gal  
Max. VOC (LE): 240 g/l; 2.0 lbs/gal  
Avg. Gallon Weight: 1140.1 g/l; 9.51 lbs/gal  
Avg. Weight % Volatiles: 54.3%  
Avg. Weight % Water: 0.0%

Avg. Weight % Exempt Solvent: 41.0%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 36.2%

Theoretical Coverage: 728.5 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 364.3 sq. ft.



**Coating Category:** Color Coating (Low VOC Hardeners, Elastic Additive)

Max. VOC (AP): 156 g/l; 1.3 lbs/gal  
Max. VOC (LE): 240 g/l; 2.0 lbs/gal  
Avg. Gallon Weight: 1142.1 g/l; 9.53 lbs/gal  
Avg. Weight % Volatiles: 52.4%  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 38.9%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 34.4%

Theoretical Coverage: 757.8 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 378.9 sq. ft.

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## VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

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## SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

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